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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/729,257

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EXAMINER

MACILWINEN, JOHN MOORE JAIN

ART UNIT

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2442

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/729,257	Applicant(s) YOKOTA ET AL.	
	Examiner John M. MacIwinen	Art Unit 2442	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,6,8,10-13,20-25,30,34,35,40,44,45,50 and 54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6,8,10-13,20-25,30,34,35,40,44,45,50 and 54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/10/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 7/02/2009 have been fully considered and are persuasive. However, after further consideration, a new grounds of rejection has been made. Said grounds of rejection is discussed in further detail below.
2. Upon reviewing the record, regarding Applicant's persuasive arguments (12/19/2008) addressing the Examiner's rejections of claims 45 and 50 under 35 USC 101, the reasons said arguments were persuasive could have been made more clearly. MPEP 2111.02 states that "if the claim preamble is 'necessary to give life, meaning, and vitality' to the claim, then the claim preamble should be construed as if in the balance of the claim". Applicant has argued that, regarding claim 45, the claim is statutory as since "a node is an active electronic device". Said node, recited in the preamble, is thus interpreted in accordance with MPEP 2111.02 as "necessary to give life, meaning, and vitality' to the claim" and thus the node is "construed as if in the balance of the claim".

This same reasoning applies to claim 50 regarding the "server device" which Applicant states is "hardware" in Applicants arguments on 12/19/2008; that is, the hardware server device is, due to Applicant's arguments "construed as if in the balance of the claim".

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 - 4, 6, 9, 10, 12 – 17, 19, and 22, 24, 25, 30, 35, 40, 45 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over RFC 3053 (IPv6 Tunnel Broker), in view of Chow (US 7,216,154 B1), further in view of Schneider (US 2008/0016233 A1).

5. Regarding claims 1, 25, 35 and 45, RFC 3053 shows a method, an IPv6 enabled node, computer readable medium containing instructions, and system with means for: an IPv6 enabled node to engage in IPv6 communications across a network containing IPv4 components through an IPv6 connect agent that connects the IPv6 enabled node to the network (pg. 3), the method comprising:

transmitting a query from a IPv6 enabled node (pg. 3)

receiving information to enable a connection to at least one IPv6 connect agent from a server (pg. 3, section 2)

utilizing the connect agent to engage in IPv6 communications across the network (pg. 3 - 4, section 2).

RFC 3053 does not explicitly show all of where a query is transmitted to a Domain Name System server,

receiving, from the Domain Name System server, at least one of an IPv6 connect agent determined by the Domain Name System server based on an identifier of the IPv6 enabled node included in the query;

transmitting a name of a desired IPv6 connect agent to the DNS server,

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receiving an address of the desired IPv6 connect agent from the DNS server.

Chow shows transmitting a query to a Domain Name System server identifying the transmitting node (Fig. 6, col. 4 lines 47 – 59) and

receiving, from the Domain Name System server, at least one of a host determined by the Domain Name System server based on the identifier of the transmitting node included in the query (Abstract, col. 1 lines 15 – 50, col. 3 lines 13 – 36)

as well as transmitting names of hosts to a Domain Name System server and receiving an address of the desired hosts from the Domain Name System server (Abstract, col. 1 lines 15 – 50, col. 3 lines 13 – 36).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of RFC 3053 with that of Chow in order to utilize the most efficient network resources available (Chow, col. 3).

RFC 3053 in view of Chow thus show utilizing at least one name of an IPv6 connect agent (such as “www.ipv6.org”; pg. 3, RFC 3053) as well as where such a name of a connect agent can be transmitted to Domain Name System servers and, receiving an address of the desired IPv6 connect agent from the Domain Name System server (that is, the translation of “www.ipv6.org”, representing the claimed “name”, into an IP address, representing the claimed “address”; Chow col. 3 lines 13 – 36), where said address is determined by the Domain Name System server based on an identifier of the IPv6 enabled node (said identifier being represented by the IP address of the node requesting the DNS lookup, where said node’s IP address is used to return the

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address of the most efficient host/connect agent – Chow, Abstract, Fig. 6, col. 4 lines 47 - 59) and engaging in IPv6 communication across the network using the address (RFC 3053, pg. 3).

However, RFC 3054 in view of Chow do not show the initial claimed querying of a Domain Name System server and then receiving from said Domain Name System server a name of a an IPv6 connect agent. That is, in the teachings of RFC 3054 in view of Chow, the method requires starting with the knowledge of the "www.ipv6.org" name, rather than querying and receiving said name from a Domain Name System server.

Schneider shows querying a Domain Name System server and receiving from the Domain Name System server at least one name determined by the Domain Name System server ([120]).

It would have bee obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of RFC 3053 in view of Chow with that of Schneider in order to allow utilization of the IPv6 Tunnel Brokers of RFC 3053 in view of Chow without user's being required to memorize particular names such as www.ipv6.org, thus simplifying the end-user experience.

RFC 3053 in view of Chow and Schneider thus show all of claim 1.

6. Regarding claim 6, RFC 3053 in view of Chow and Schneider further show wherein the desired connect agent is the one closest to the IPv6 enabled node (RFC 3053, pg. 3, Section 2).

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7. Regarding claim 10, RFC 3053 in view of Chow and Schneider further show wherein the query comprises an IP address (Chow, col. 3 lines 13 – 34, col. 4 lines 50 – 60).

8. Regarding claim 12, RFC 3053 in view of Chow and Schneider further show wherein the query comprises a character string (Chow, col. 3 lines 13 – 34).

9. Regarding claim 13, 30, 40 and 50, RFC 3053 in view of Chow and Schneider further show a method, a Domain Name Server System, and a computer readable medium containing instructions for, a Domain Name System server in a network containing IPv4 components to provide to an IPv6 enabled node an address of an IPv6 connect agent that connects the IPv6 enabled node to the network (RFC 3053, pg. 3), the method comprising:

receiving a query identifying the IPv6 enabled node from the IPv6 enabled node (Chow, col. 3 lines 14 – 37, col. 4 lines 50 – 60);

determining at least one IPv6 connect agent based on an identifier of the IPv6 enabled node included in the query (Chow, Fig. 6, col. 4 lines 47 – 59 and Schneider, [120]);

transmitting a name of the IPv6 connect agent determined to the IPv6 enabled node (Chow, Fig. 6, col. 4 lines 47 – 59, RFC 3054, pg. 3, Schneider [120]);

receiving a name of a desired IPv6 connect agent from the IPv6 enabled node;
and

transmitting an address of the desired IPv6 connect agent to the IPv6 enabled node (Chow, Abstract, col. 1 lines 15 – 50, col. 3 lines 13 – 36).

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10. Regarding claim 22, RFC 3053 in view of Chow and Schneider further show wherein the query comprises an Internet Protocol address (Chow, col. 3 lines 13 – 34, col. 4 lines 50 - 60).

11. Regarding claim 24, RFC 3053 in view of Chow and Schneider further show wherein the query comprises a character string (Chow, col. 3 lines 13 - 34).

12. Claims 11, 20, 23, 34, 44 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over RFC 3053 in view of Chow and Schneider as applied to claims 1 and 13 above, and further in view of Stevens (TCP/IP Illustrated, Volume 1: The Protocols).

13. Regarding claims 11 and 23, RFC 3053 in view of Chow and Schneider as applied to claims 1 and 13.

RFC 3053 in view of Chow and Schneider as applied to claims 1 and 13 do not explicitly show where the identifier comprises a Media Access Control address.

Stevens shows where the identifier comprises a Media Access Control address (pgs. 19 – 22)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of RFC 3053 in view of Chow and Schneider with that of Stevens in order to comply with traditional DNS querying methodologies and protocols.

14. Regarding claims 20, 34, 44 and 54, RFC 3053 in view of Chow, Schneider and Stevens further show searching a record corresponding to the name of the desired IPv6 connect agent from a lookup table; and

finding the address of the desired IPv6 agent from the record (Stevens, pg. 20).

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15. Claims 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over RFC 3053 in view of Chow and Schneider as applied to claim 1 above, and further in view of Coughlin et al. (US 6,810,411 B1), hereafter Coughlin.

16. Regarding claim 8, RFC 3053 in view of Chow and Schneider show claim 1.

RFC 3053 in view of Chow and Schneider do not show where the desired IPv6 connect agent is the one whose name is first received from the DNS server.

Coughlin shows where the desired IPv6 connect agent is the one whose name is first received from the DNS server (Coughlin, col. 10 lines 45 – 67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of RFC 3053 in view of Chow and Schneider with that of Coughlin in order to ensure a DNS server was selected, and when possible, the fastest available (i.e., the first to respond) server is selected.

17. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over RFC 3053 in view of Chow, Schneider and Stevens as applied to claim 20 above, and further in view of Kang et al. (US 2003/0074461 A1).

18. Regarding claim 21, RFC 3053 in view of Chow, Schneider and Stevens show claim 20.

RFC 3053 in view of Chow, Schneider and Stevens do not explicitly show using a Naming Authority Pointer Domain Name System resource record.

Kang shows using a Naming Authority Pointer Domain Name System resource record ([8, 22, 31 – 34]).

It would have been obvious to one of ordinary skill in the art at the time of the

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invention to modify the disclosure of RFC 3053 in view of Chow, Schneider and Stevens with that of Kang in order to use an additional record, compatible with the DNS methodology of the other disclosures, to resolve and lookup hosts (Kang, [8]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. MacIlwinen whose telephone number is (571) 272-9686. The examiner can normally be reached on M-F 7:30AM - 5:00PM EST; off alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew Caldwell/
Supervisory Patent Examiner, Art
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